

CLAIMS

1. A dishwasher comprising a washing container and devices for washing crockery using rinsing solution, characterised in that  
the dishwasher (1) comprises a sorption column (10) containing reversibly dehydratable material (11) which is connected to the washing container (2) in an air-conductive manner, wherein the sorption column (10) is used on the one hand for drying the crockery and on the other hand, the thermal energy used for desorption of the sorption column (10) is used at least partly for heating the rinsing solution in the washing container (2) and/or the crockery.
2. The dishwasher according to claim 1, characterised in that  
during the partial program step "drying" on the one hand and on the other hand preferably during a partial program step using rinsing liquid to be heated, preferably during the partial program step "clean" and/or "pre-rinse", air from the washing container (2) and/or from the ambient air is passed through the sorption column (10) and into the washing container (2).
3. The method according to claim 1 or 2, characterised in that  
the washing container (2) has an outlet (5) with a pipe (6) to the sorption column (10), wherein said pipe (6) preferably has a check valve and then in the direction of flow preferably an inlet valve to the ambient air, and the washing container (2) has an inlet (8) with a pipe (7) from the sorption column (10), wherein a fan (9) is located in the pipe (6) to the sorption column (10), which introduces at least

some of the air in the washing container (2) or from the ambient air to the sorption column (10) at least temporarily.

4. The dishwasher according to any one of claims 1 to 3, characterised in that the sorption column (10) comprises a container for the reversibly dehydratable material (11) which makes it possible to exchange moisture and/or heat between the reversible dehydratable material (11) and the air surrounding it.
5. The dishwasher according to any one of claims 1 to 4, characterised in that a preferably electric heating element (12) is provided for desorption of the reversibly dehydratable material (11).
6. The dishwasher according to claim 5, characterised in that the heating element is arranged in the reversibly dehydratable material (11) or in the pipe (6) to the sorption column (10).
7. The dishwasher according to any one of claims 3 to 6, characterised in that the air introduced into the washing container (2) via the inlet (8) is cooled.
8. The dishwasher according to any one of claims 3 to 7, characterised in that a droplet separator is arranged at the inlet (5) or the pipe (6) is guided upwards over a partial area at the inlet (5) so that no spray water reaches the sorption column (10) via the pipe (6).

9. The dishwasher according to claim 1,  
characterised in that  
the thermal energy used for desorption is stored in a  
heat storage device, e.g. latent storage device,  
before use for heating the rinsing solution and/or the  
crookery.